

What is claimed is:

- 1 1. A safety circuit for a chimney fan driven by a household current-powered
2 asynchronous motor with an auxiliary winding and a capacitor, comprising:
3 means for briefly increasing a supply of voltage to the motor immediately
4 before a brief interruption of the connection between the household current and the
5 capacitor;
6 means for measuring a signal across the auxiliary winding; and
7 means for causing an alarm indication when the signal is below a preset value.

- 1 2. A safety circuit according to claim 1, wherein the means for briefly
2 increasing is performed in conjunction with an electronic speed control for the motor
3 by briefly setting the speed control to maximum.

- 1 3. A safety circuit according to claim 1, further comprising means for
2 combining information about the presence of household voltage with information
3 about a current in the motor circuit in order to ascertain if a blocked motor shaft has
4 occurred when the alarm is indicated.

- 1 4. A safety device for a chimney fan driven by a household current-powered
2 asynchronous motor with an auxiliary winding and a capacitor, the safety device
3 comprising:
4 a safety circuit, wherein a voltage supplied to the motor is briefly increased
5 immediately before a brief interruption of the connection between the household

6 current and the capacitor, whereupon a measuring signal is taken across the auxiliary
7 winding, said measuring signal causing an alarm when it is below a preset value.

1 5. A safety circuit according to claim 4 in conjunction with an electronic
2 speed control for the motor, wherein the speed control is briefly set to maximum
3 immediately before the brief disconnection in order to obtain the measuring signal.

1 6. A safety circuit according to claim 4, wherein in case of alarm, information
2 about the presence of household voltage is combined with information about a current
3 in the motor circuit in order to ascertain if a blocked motor shaft has occurred.

1 7. Method for monitoring a chimney fan driven by a household current-
2 powered asynchronous motor with an auxiliary winding and a capacitor, comprising
3 steps of:

4 briefly increasing a voltage supplied to the motor;
5 immediately after the step of increasing, briefly interrupting a connection
6 between the household current and the capacitor;
7 measuring a signal across the auxiliary winding during the brief interruption;
8 and
9 causing an alarm indication when the signal is below a preset value.

1 8. The method of claim 7, wherein the step of briefly increasing the voltage is
2 performed in conjunction with an electronic speed control for the motor by briefly
3 setting the speed control to a maximum level.

1 9. The method of claim 7, further comprising a step of combining information
2 about the presence of household voltage with information about a current in the motor
3 circuit in order to ascertain if a blocked motor shaft has occurred when the alarm is
4 indicated.

1 10. A chimney fan system comprising:
2 a safety circuit; and
3 a chimney fan driven by a household current-powered asynchronous motor
4 with an auxiliary winding and a capacitor;
5 wherein the voltage supplied to the motor is briefly increased immediately
6 before a brief interruption of the connection between the household current and the
7 capacitor, whereupon a measuring signal is taken across the auxiliary winding, said
8 measuring signal causing an alarm indication when it is below a preset value.

1 11. The chimney fan system of claim 10 further comprising an electronic
2 speed control for the motor, wherein the speed control is briefly set to maximum
3 immediately before the brief disconnection in order to obtain the measuring signal.

1 12. The chimney fan system of claim 10, wherein in when the alarm is
2 indicated, information about the presence of household voltage is combined with
3 information about a current in the motor circuit in order to ascertain if a blocked
4 motor shaft has occurred.